



# Friends of Science in Medicine

Newsletter 30— 12 November 2021

## Who are we? Special anniversary edition

# 10

## ANNIVERSARY C E L E B R A T I O N

*In December 2011 five individuals from across Australia formed Friends of Science in Medicine to foster "good science in medicine". A decade on, their work continues.*



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## Who are FSM's co-founders?



### Emeritus Professor John Dwyer AO

#### **Immunologist, Founding Member of FSM**

Dwyer was appointed Emeritus Professor in recognition of his distinguished service to the University of NSW, and the "John Dwyer Lecture Theatre" in the Prince of Wales Hospital is named after him.

He was appointed a Member of the Order of Australia (AO) in 1991, for *"service to public health, particularly through the treatment and prevention of infectious diseases"*.

In 2000 he was named *"Skeptic of the Year"* by the Australian Skeptics.

He continues to represent FSM on health issues relating immunology and COVID-19.

### Loretti Marron OAM

#### **Chief Executive Officer and Secretary, Founding Member of FSM**

Marron was named *"Skeptic of the Year"* twice (in 2006-2007, and 2011) in recognition of her *"great contributions to public health and the exposure of dangerous and discredited treatments that profit through offering spurious cures to the vulnerable and ill"* and in 2016, they made her a life member.

In 2012 she represented FSM when they were named *"Skeptic of the Year"*.

In 2014 she was appointed a Member of the Order of Australia Medal (OAM) for *"service to community health"*.

### Emeritus Professor Alastair MacLennan AO

#### **Obstetrician & Gynaecologist, Founding Member of FSM**

This year MacLennan was awarded the Distinguished Service Medal of The Royal Australian and New Zealand College of Obstetricians and Gynaecologists *"for significant contributions to women's health and in particular his ground-breaking research into the causes of cerebral palsy and the contributions this work has had on the practice of Obstetrics"*.

In 2011 he was appointed a Member of the Order of Australia (AO) for *"distinguished service to medicine as a leading researcher and practitioner in the areas of obstetrics and gynaecology and the causes of cerebral palsy, to medical education and to professional development"*.

He continues to represent FSM on health issues relating to women and babies.

### Professor Rob Morrison OAM

#### **Science Communicator, Founding Member of FSM**

Morrison has twice won the Eureka Prize and in 2004 he was appointed a Member of the Order of Australia (OAM) for *"service to conservation and the environment, and to the fields of science education and communication"*. In 2008 he was South Australia's "Senior Australian of the Year" and a finalist for the national "Senior Australian of the Year".

He continues to represent FSM on issues relating to science education.

### Professor Marcello Costa AO

#### **Neuroscientist, Founding Member of FSM**

Costa wrote the principles and commitments for FSM. In 2018 he was awarded a "Lifetime Achievement Award" for advancing *"the entire field and such advances have been recognised by all the societies of the world 'Federation of Neurogastroenterology and Motility'"*.

In 2020 he was appointed a Member of the Order of Australia (AO) for *"distinguished service to higher education, and to medical research, in the field of neurophysiology, and to professional scientific bodies."*

The Educator (Higher education edition) also recognised Costa as one of Australia's most outstanding educators. Hundreds of his scientific papers, published both in Australia and in international journals, continue to inspire new generations of medical, health, psychology and science students.

He continues to represent FSM on health issues relating to the brain and spine.





## Who are FSM's current Executive Members?

### Associate Professor Ken Harvey AM, President of FSM

In 2011 Harvey was awarded the *Thornett Award for Promotion of Reason* by the Australian Skeptics, and in 2013 they made him a life member. The Australian consumer advocacy organisation *Choice* gave him its 'Consumer Champion' award in 2012, describing him as a 'scam buster and snake oil nemesis', naming him a life member for his 'services to the consumer movement'.

In 2016 he was presented with the Australian and New Zealand Association for the Advancement of Science (ANZAAS) Medal, "in recognition of his longstanding advocacy for evidence-based medicine and treatment". The same year, he was named *Skeptic of the Year* by the Australian Skeptics "for continued and determined efforts which have made a significant impact on exposing malpractice in the chiropractic industry and its governing bodies".

Harvey was appointed a Member of the Order of Australia (AM) in 2017 for "significant service to community health and the pharmaceutical industry through roles in developing guidelines for the ethical use of antibiotics".

### Professor Paul Rolan, Chronic Pain Management, Vice President of FSM

After his medical training, Rolan worked as Director of Medicine at *Cairns Hospital* and then moved to the UK where he developed new medicines for almost 20 years. Returning to Australia, he took on academic and research roles at the University of Adelaide, becoming the Head of School of Medical Sciences in 2014.

Since 2016 he has been the Director of Innovation for the Faculty of Health Sciences. He jointly established the university's *Pain and Anaesthesia Research Clinic (PARC)*.

*Google Scholar* lists 153 publications and his h-index as 42.

### Professor Hubertus Jersmann, Treasurer and Public Officer, FSM

Hubertus Jersmann is a respiratory and sleep physician. He currently works at the Discipline of Medicine, University of Adelaide. His research focuses around inflammation, pathways, cell death and cancer within the lung.

He also conducts research around specialised procedures in interventional pulmonology and clinical trials in respiratory medicine such as asthma and chronic obstructive pulmonary disease (COPD).

*Google Scholar* lists 176 publications and his h-index as 27.

### Dr Ian Musgrave, Executive Member, FSM

A Senior Lecturer, Medical Sciences, University of Adelaide, Musgrave is a molecular pharmacologist. He is skilled in pharmacology, toxicology, bioinformatics, cancer research, evolutionary computation, and molecular biology. He won the *Thornett Award for the Promotion of Reason* in 2018.

*Google Scholar* lists 161 publications and his h-index as 29.

### Dr Paulina Stehlik, Executive Member, FSM

Stehlik, a Senior Research Fellow, Centre for Research in Evidence-Based Practice, Bond University has received two teaching awards for her work in teaching clinicians. She was named one of *The Educator's Higher Education Rising Stars for 2020* and she received a commendation for *Early Career Teaching Excellence Commendation 2020* from the *Institute for Evidence-Based Healthcare*.

*Google Scholar* lists 17 publications and her h-index as 7.

### Kurt Van Ryswyk, Executive member, FSM

Kurt is a sustainability consultant with a Masters in Biomedical/Mechanical Engineering. The youngest exec member, he runs social media and his focus relates to supporting a younger audience.





## Who else helps FSM?

# Thank you!

While four of our co-founders, Professors Dwyer, MacLennan, Costa and Morrison, have retired from their positions on the Executive, they have remained consultants in their fields of expertise.

Others who have volunteered their time and expertise include the following:

- [Dr Peter Arnold](#) (JAM) (Chief Editor)
- [Emeritus Professor Ian Gilchrist](#) (Web Site)
- [Dr Pallavi Dasari](#) (Social Media & newsletter column- cancer and Complementary and Alternative medicine (CAM))
- [Dr Sue Ieraci](#) (Social Media)
- [Kurt Van Ryswyk](#) (Social Media)
- [Joanne Benham](#) (Social Media)
- [Dr Bruce Arnold](#) (Regulatory Compliance and Consumer Protection)
- [Dr Mark Hefkin](#) (Laboratory Investigation)
- [Dr Bruce Campbell](#) (Laboratory Investigation)
- [Dr Cami Martin](#) (General Practitioner)
- [Dr Don Cameron](#) (Paediatric Gastroenterologist)
- [Dr John MacLennan](#) (Paediatrician)
- [Tanya Stephens](#) (newsletter column- veterinary medicine and CAM)
- [Mal Vickers](#) (newsletter column- TGA and CAM)
- [Ian Carr](#) (newsletter column- pharmacy and CAM)
- [Dr Michael Foley](#) (newsletter column- dentistry and CAM)
- [Tara De Koning](#) (newsletter column- nursing and CAM)
- [Dr Benson Riddle](#) (newsletter column- General Practice and CAM)

Drs Dasari, Ieraci, Martin and Riddle and Joanne Benham are former Exec Members.

We acknowledge the considerable contribution of the above and others who, over the past decade, have supported FSM.



## “Desperation started me on my journey to ‘Friends’”

I think it was the actor Steve McQueen who provided me with my first emotional response to Quackery. The poor man, with an advanced mesothelioma caused by exposure to asbestos when a child, was lured to Mexico with a promise that a cure for his cancer was available using extracts from apricot seeds. McQueen was to be robbed before he died.



*John Dwyer*

However, my involvement in advocacy for medical science to be underpinned by credible scientific evidence of effectiveness, began in the early 80s when I began seeing patients with HIV/AIDS. At that time I was working at Yale University in the US where, in 1982/3, we immunologists started seeing many patients who were having their immune system destroyed from what we knew not!

The very first patient with AIDS referred to me for care was one of my most remarkable. He was 33 years old and suffered from haemophilia, a condition in which a factor needed to make one's blood clot was missing. Amazingly the discovery of ways to extract this factor from normal blood and inject it intravenously into patients with haemophilia was allowing them to live a near normal life. My patient was actually an airline pilot for American Airlines and had received much publicity for this achievement.



Tragically the blood supply used to make the preparation for patients became contaminated with HIV so my patient and many thousands of haemophiliacs were infected with HIV and died from AIDS. In this case the tragedy was compounded by the man's fiancée also becoming infected through sexual transmission of the virus. I remember vividly this young lady literally throwing her arms around my neck crying and begging me to do something and

save them. That desperation and my impotence has long stayed with me but I was to see it time and again among my patients with AIDS.

Soon after I returned to Australia, panic, fear, discrimination and dangerous misinformation was all too common. My patients knew I could do little for them, as this was before effective drugs were available. Time and time again I saw that desperation could lure the most intelligent of people to the cruel promises of the charlatans.

A number of my patients heard of the miraculous cures being offered in Melbourne wherein HIV was being killed by huge amounts of Vitamin C. In most cases I was unable to dissuade patients from trying this useless treatment.

A Judge I was caring for went to Mexico to have his blood heated at enormous cost but with a promise of a cure. Another patient went to the Philippines (as did hundreds of others) where God had granted special powers to a traditional healer who could pull the AIDS demon out of your abdomen. He even had a crude video holding some decaying matter in his hands, supposedly extracted from the patients' abdomen. I knew only too well that desperation can eliminate one's ability to analyse a proposition you are so anxious to be true.

These experiences resulted in my determination to use my position as a senior academic physician to promote evidence-based medicine and expose, and hopefully reduce, the incidence of flourishing health care fraud. With like minded colleagues "Friends of Science in Medicine" provides the instrument for pursuing these goals.

**Professor John Dwyer AO,  
Immunologist and Foundation President of FSM**



## "Not without a battle"

The 'critical thinking' bug bit me at eleven. If something doesn't sound logical, I can't let it alone. I have to check. I have to challenge. In this Internet age, I know how to kill a party by dispuring misinformation – with evidence. A good use for my iPhone.

With a BSc in Physics, it was inevitable that I would, one day, see a worrying advertisement. Fifteen years ago, I heard repeated claims on TV for magnetic underlays. I complained to the TGACRP (the now defunct complaints resolution panel of the [Therapeutic Goods Administration \(TGA\)](#)), to Fair Trading, to the [Health Quality and Complaints Commission \(HQCC\)](#), to [Advertising Standards](#) and others. It took three years but the advertisements were eventually removed.

I complained again to the TGACRP about a homeopathic remedy. It was upheld. I then submitted hundreds more complaints that were successful. Having advertising removed was the way to go!

Breast cancer in 2003 brought self-education on interventions lacking credible evidence. I had a subscription in *The Senior* magazine (circulation over 50,000), targeting the over-50s. At least a third comprised outrageous claims for dietary supplements. It also promoted a natural cure for prostate cancer. I took them on. The magazine removed the advertising – but not without a battle.

Along the way, I learned about the hundreds of useless "energy medicine" and other devices the TGA legitimised by listing them. I took them on. Many were eventually delisted – but not without a battle.



Having cancer led me to challenge alternative cancer interventions, even going [under cover](#). It led to my appearance in *New Idea*, *The Weekend Australian* magazine, *The Sunday Mail* and other papers. In my persona as the "Jelly Bean Lady", I even had a regular spot on Queensland radio and TV. I have published in the *Australian Family Physician*, the *Medical Journal of Australia* and its *Insight* and been interviewed for the *BMI*.

Writing reports, letters and submissions, I needed to consult experts. Scanning newspapers, I found Emeritus Professor John Dwyer (Immunology), Professor Alastair McLennan (Obstetrics and Gynaecology) and others. Even though Professor McLennan was running the [Women's and Children's Hospital](#) at that time, he always took time to help. They all did.

In December 2011, [Professor Dwyer](#) brought me together with Professors [MacLennan](#), neuroscientist [Marcello Costa](#) and science communicator [Rob Morrison](#) — to propose that we join forces through a new organisation promoting "good science in medicine". Music to my ears!

There have been many wins, but when it comes to the TGA, private health funds, universities, pharmacies, so-called "integrative medicine" and "alternative medicine" *registered* practitioners, 'natural' therapists and anyone looking to a quick dollar by exploiting our most vulnerable – money talks. Consumer protection comes a distant second!

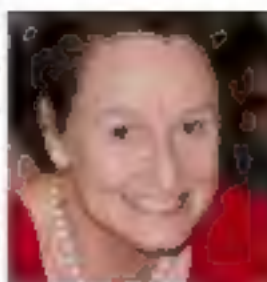
In 2014, in recognition of my work, I was awarded an OAM for "services to community health".

Earlier this year, I told my story to some undergraduates. They had never heard of magnetic underlays. It was a good day for me.

FSM is still making a difference. The battle continues.

**Loretta Marron OAM**

**Chief Executive Officer and Founder Member of FSM**



*Loretta Marron*



## "Science in Medicine but not Medical Litigation"

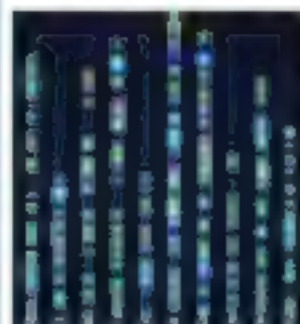
Until 1977, when all doctors bought medical indemnity insurance for \$100 annually, the caesarean delivery rate was around 5%. By 1997, caesarean rates had approached 35%, especially in private hospitals mostly due to defensive obstetrics without change in the rate of cerebral palsy. Obstetricians were now paying \$100,000.

In between these dates, the plain litigation target was a child with cerebral palsy. The arbit claim could be \$20 million, of which lawyers, offering a 'no win - no fee' service, could take at least 30%.

Specialist plaintiff firms found 'expert' medical witnesses to reliably and repeatedly conclude that, had the delivery been a little more expeditious, 'birth asphyxia' and neurological damage should not have occurred. An epidemic of cerebral palsy litigation took off. By 2000, it was said "It has never been safer to have a baby and never more dangerous to be an obstetrician". Bumper stickers read "Let a lawyer deliver your baby."

Most of these 'experts', despite little or no knowledge about research into cerebral palsy causation, were quick to presume acute severe birth hypoxia – without evidence. Their 'expertise' relied on authorship of text books or non-specific case reports.

Although international consensus groups published strict criteria for severe acute birth hypoxia, plaintiff witnesses rarely applied them.



Few cases reached court. Most were confidentially and more cheaply settled when the legal teams met to compare expert opinions.

Gradually, epidemiological studies showed a range of contributing antenatal risk factors and suggested genetic factors.

The advent of new-generation genomic sequencing over the last decade and large biobanks of genetic material from families with an affected child, together with detailed clinical data, have brought more insight.

Exome and whole genome sequencing – together with RNA sequencing, microarray, copy number variations, the detection of mosaicism and epigenetic factors – are gradually showing that between a third and half of all affected children have a serious genetic variant, often with intellectual disability, epilepsy and autism. It is now recommended that all have genomic sequencing at any age, but as early as possible when there is still potential neuroplasticity.

Genomic sequencing does not just stop inappropriate litigation. More importantly, up to a quarter of affected babies have promising treatment where the aberrant neurological pathway can be interrupted or remediated. Secondly, the parents might be relieved of guilt. Thirdly, family planning can be facilitated. Most of the causative *de novo* genetic variations have a very low recurrence rate, but a less common inherited variant can recur.

At last, the misinformation that cerebral palsy is commonly due to avoidable accidents at birth is being allayed, non-expert 'expert' witnesses are being exposed and medical insurance agencies are seeing a down-turn in claims.

Science in medicine is winning!

*Emeritus Professor Alastair MacLennan AO*

*Obstetrician and Gynaecologist and Founder Member of FSM.*



*Alastair MacLennan*

## Cerebral Palsy



## "Why I helped found FSM"

With a background in Science, rather than Medicine, I was not stirred into action by fraudulent clinical claims as were some of the other founders.

I had spent about 45 years in universities and broadcasting, teaching about science and how it functions. Too often, it is regarded as a body of factual knowledge – frogs, planets, climate etc. – but what is really important is how science tests a proposition to discover its truth or falsity. This separates valid health claims from those offered by many others from the mistaken and self-convinced in the avaricious and fraudulent. The scientific method is best for sorting what in the natural world is true or not.



Rob Morrison



Many and varied abuses of science's good name have proliferated to an extraordinary extent on the Internet, where every huckster who can see a quick dollar can promote unscientific and pseudoscientific nonsense to sell something or gain a spurious reputation as an expert. What is worse, these charlatans hijack valid scientific terminology to make their claims and gimmicks sound impressive or 'sciencey' to fool their uncomprehending victims.

With the advent of COVID-19, there has evolved a sharp division between those who accept the value of the scientific method and those who resist and oppose it. The former understand the scientific approach to the development of vaccines, their rigorous testing, good statistical analysis of results, peer review and reporting in credible journals. Complicating matters are those who get their information from dubious internet sites, are swayed by self-appointed gurus, seize upon the promise of ineffective treatments and cite one-off experiences as though they apply to all and sundry. Tragically, deaths among the ranks of the latter have been numerous and continue to grow; testament to the power of belief over rational thought.

Hence the name of our organisation: *'Friends of Science in Medicine'*. FSM is not just attacking bogus medical and health claims, but showing how truly effective medicine is based on sound scientific principles accepted world-wide. FSM has consistently argued for that approach to be understood and supported by bodies charged with ensuring that Australian consumers can rely on the health products and treatments advertised as effective and reliable.

That approach distinguishes between 'complementary' health measures – which might, by providing various degrees of comfort or relief, support evidence-based treatments – and 'alternative' interventions whose proponents resist scientific validation and examination of their claims. 'AllMed' encourages those who believe that new treatments, novel medicines and even folk and traditional remedies might, without evidence, have something to offer.

What FSM asks is that such interventions go through appropriate scientific validation before they are deemed to be genuine contributions to health. Sadly, our society has witnessed an increase in unscientific – even anti-scientific – elements since FSM was founded. This makes our work even more important. It is even more pressing, in this age of 'social media' misinformation, that we and others do what we can to show the real and lasting value of the scientific approach to all health matters.

Lives depend on it.

**Rob Morrison OAM**

*Science communicator and Founder Member of FSM*



## “ Why I helped found FSM”

My research and teaching career in neuroscience involved a special interest in why some people believe certain ideas.

From primary school in religious colleges – an Italian Jesuit school immediately post-WWII, then a Salesian school in Argentina in 1949 – I was confronted with the dogmas of Catholicism, incomprehensible to my curious young mind. I started early to refute them, rebelling against total intellectual submission. I became an atheist before my teens, as I did not need to resort to a God to understand the universe. I have since retained a keen interest in why beliefs are so widely held.



Marcello Costa

My interest in how the brain works was a natural evolution of my thinking while studying Medicine in Turin (Italy). As a leader of the radical student movement, I was, in the 1960s, involved in civil liberties battles, including divorce and birth control.

In 1970, I migrated to Australia to pursue Neuroscience. Changing disciplines from Anatomy in Turin, I became a Foundation Lecturer in Physiology at the new Flinders School and one of the founders of the [Australian Neuroscience Society](#).



How could intelligent people accept explanations other than those based on scientific methods? Over several decades, I remained interested in the foundations of knowledge and engaged in public discourse on the importance of applying science to all human activities.

Back in the 70s, Biology, Sociology and Psychology started to be integrated under the “bio-psycho-social model”. Neuroscience, new and multidisciplinary, was the obvious way to bring all human activities under a scientific umbrella. Colleagues and I began to give public talks on the importance of neuroscience in all human respects, including existential, moral and social. I remained interested in how humans build explanations for everything. I reluctantly accept that, for the moment, religious beliefs are unlikely to be replaced by rational thinking.

When Loretta Marron mentioned starting an association to foster a rational attitude in health matters, I realised that this was a superb possibility to put to the test the power of rational thinking, by focusing on the most personal interest of each of us – our own health. This could empower rational scientific thinking against irrational beliefs.

As a founder of FSM, I remained, till recently, on its executive. We were a disparate collection of intellects, with different perspectives but a shared goal. We first addressed tertiary education, where, in Australia and elsewhere, there were still numerous examples of Health courses based on pseudo-sciences, well described on FSM’s website.

We carefully distinguished between pseudo-sciences which developed within the age of modern medicine (such as homeopathy, chiropractic, osteopathy and naturopathy) and pre-scientific medicines such as Greek-European, Indian, Japanese and Chinese traditional medicines.

FSM has had positive impacts on Australians’ health by creating a strong consensus of what modern science-based Medicine and allied health disciplines consist of. This justifies the efforts of so many colleagues in educating the public about the adverse consequences of allowing pseudo-sciences to be taught in health-based tertiary courses and to then to be practised.

The deep and mysterious processes behind the many irrational decisions in personal health remain a real challenge for a civilised society. The focus of the current Executive has shifted successfully to ensuring critical assessment of the health regulatory bodies. This is our best chance to keep modern health policies based on good science.

**Professor Marcello Costa AO**

**Neuroscientist and Founder Member of FSM**



## “Why did I get involved in FSM?”

Two seminal events in my life resonated with the aims of FSM and led to my ongoing involvement.

Forty years ago, while working at The Royal Melbourne Hospital, Victorian Teaching Hospitals were confronted by hospital-acquired infection caused by methicillin-resistant *Staphylococcus aureus* (MRSA).

As antibiotic-resistance reflects antibiotic prescribing, I conducted, with the help of hospital pharmacists, ward surveys of antibiotic use. We found that broad-spectrum antibiotics were being prescribed when narrower-spectrum antibiotics would have wiser. Antibiotic prophylaxis for surgery was often continued too long. Despite blood culture and antibiotic sensitivity results showing a sensitive-specific pathogen, broad-spectrum antibiotic regimens were not optimised.



Ken Harvey

In response, colleagues from various hospitals came together to produce *Antibiotic Guidelines*. This allowed us, using evidence-based guidelines, to audit and compare medical and surgical units. As drugs changed, germs changed, and knowledge changed, so we updated the guidelines regularly. Evidence, distilled by experts, set the guidelines for audit, education, and targeted campaigns. As time passed, the *Guidelines*, now in their 16th edition, became national.

### ANTIBIOTIC GUIDELINES

What worked for antibiotics spread to other therapeutic groups, with many other *Therapeutic Guidelines*. Today, *NPS Medicine Wise* continues targeted education campaigns as part of Australian National Medicines Policy.

Then there was the *SensaSlim* affair: a miracle weight-loss product plugged on prime-time current affairs TV. Endorsed by a white-coated doctor, it had impressive clinical trial results and numerous customer “testimonials”. But, as the claims were too extravagant to be true, I lodged a complaint with the regulatory authority.

*SensaSlim* sued for defamation. Their newsletter said, “This defamation action, which could be in the courts for a year or two or even longer, basically gives an iron-clad protection that nobody can raise a complaint against *SensaSlim* to the CRP [Complaints Resolution Panel of the TGA] and hurt us.”

But this became news. Once journalists stuffed around, much embarrassing stuff emerged. The clinical trial was fabricated, and the white-coated doctor disassociated himself from the company and the product. Even current affairs TV turned on them, damning the dastardly scammers who not so long ago were their weight-loss heroes.

The ACCC finally acted. With assets frozen, the company was placed into receivership. I won the defamation case and was awarded costs, a pyrrhic victory because *SensaSlim* was liquidated and couldn’t pay. However, thanks to the moral and financial support of fellow health professionals, friends from the consumer movement, Australian Skeptics, and many ordinary people, I did not end up out of pocket. The media played a crucial role by providing extensive publicity. Subsequently, Maurice Blackburn lawyers acted for me *pro bono*.

These events triggered my involvement in encouraging (and submitting) complaints about unethical promotion and practice, and in urging regulators to act. FSM is available to the media and others as a credible source of expertise. It aims to help health professionals and patients make scientifically sound choices. Supporting scientific rigour is especially important in an age when unsubstantiated health claims are rampant and scientific consensus is “imbalanced” by the social media views of scientifically illiterate extremists.

**Associate Professor Ken Harvey AM**  
**President of FSM**



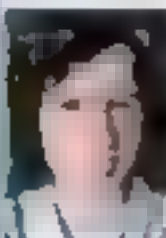
## The power of one! - where are they now?

In June 2017 FSM started a series showcasing exceptional individuals who share our passion for "good science in medicine"

They included students, science advocates, medical doctors and pharmacists. They are from Canada, United Kingdom, New Zealand, Brazil and Australia.

In the years since they were featured, they have all continued to fight for good science in medicine

### Newsletter 16, 23 June 2017



In 2017 Canadian resident, Andrea MacGregor entered her final semester of college. Having pseudoscience and despite being in the middle of exams, when she realised that acupuncture was being endorsed by a prestigious Toronto-based children's hospital, she took them on. They listened - and acted.

Andrea then enrolled in Law and has now graduated from the Schulich School of Law, Dalhousie University, Canada

### Newsletter 17, 3 November 2017



In 2017, under the mentorship of Dr Ken Harvey AM, at the Monash School of Public Health, Eliza began her research crusade to expose the capricious product's misleading advertising for being "healthy for kids" and to urge the Therapeutic Goods Administration in review its regulation which is ambiguously defined, sitting at the food-medicine interface

Eliza is now the Co-founder and Managing Director of [Epand Jones](#) and Associate at Boston Consulting Group

### Newsletter 18, 2 March 2018



Daniel Ryan, a consumer advocate from Wellington, New Zealand (NZ), works as a senior software developer. He is a co-founder and president of Making Sense of Flavours, a committee member of NZ Skeptics and a co-founder and committee member of the Society for Science Based Healthcare

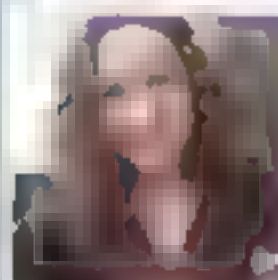
He continues his work in health activism

### Newsletter 19, 20 July 2018



Co-founder of the Merseyside Skeptics Society and co-organiser of the QED skeptical conference, Michael Marshall (aka Marsh) was the project leader and figurehead of the 10/23 Campaign, aimed at raising public awareness of the fallacy of homeopathy, resulting in international coverage and world-wide skeptical involvement. He continues his work in health activism with the Good Thinking Society, a UK-based skeptical charity which challenges pseudoscience in healthcare and is currently editor of The Skeptic, the UK skeptical magazine

### Newsletter 21, 27 April 2019

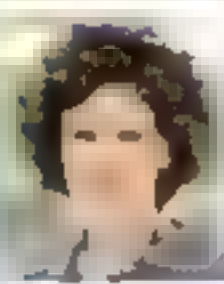


In 2016, with a PhD in bacterial genetics, Natalia Pasternak burst to the forefront of science communication and skepticism in Brazil with two bold initiatives: the organisation of the Brazilian edition of the Pint of Science Festival and, as the main propagator thanks to her blog Café na Bancada (Coffee on the Lab Bench), of scientific criticism of the "miracle cancer pill" craze which was sweeping across Brazil. She continues to fight the Brazilian President Bolsonaro's anti-science stance which has contributed to

widespread deaths in the COVID-19 pandemic



### Newsletter 22, 30 August 2019



With a focus on drug interactions for both prescription drugs and complementary medicines' (CMs), Geraldine Moses AM BPharm DCLinPharm AdvPracPharm has become one of Australia's highest profile clinical pharmacists. A former ABC radio broadcaster and popular speaker both nationally and abroad, Geraldine's publication 'What's in complementary medicines?' triggered widespread general media interest. She is now an Adjunct Associate Professor, School of Pharmacy, University of Queensland.

### Newsletter 23, 28 December 2019



John Cunningham BSc(Hons) MBBS MCLinEpi FRACS FAOrthA is an Australian-trained Melbourne orthopaedic surgeon who specialises in spinal disorders and is active in clinical research. His knowledgeable opinion, especially about ageing spines, spinal trauma and spinal imbalance, is respected worldwide. Dr Cunningham has been publishing research in international journals since 1993. He presents at Australian and international meetings and he holds Visiting Medical Officer appointments at both Epworth (Richmond) and the Royal Melbourne Hospital. He continues to be concerned about chiropractors' treatment of children.

### Newsletter 26, 20 October 2020 James Muddox Prize 2018



Erin Hermes  
Erin Hermes

Erin Hermes is a science communicator and biomedical researcher with a unique background. After earning a 'doctorate' in naturopathic medicine in the US, she practiced there as a licensed naturopath for three years. She quit in 2015, after realising that it was riddled with quackery. She can be found on [YouTube](https://www.youtube.com/channel/UC8wL2pXkKkKkKkKkKkKkKkK) and she runs her own blog <https://www.erinhermes.com> which she started expose naturopathic medicine and protect patients from the dangerous and incompetent practices rife in my former profession. Holding a 'doctorate' in naturopathic medicine, continues to be a vocal critic of her former profession.



Dr Ken Harvey is a speaker at Skepticon 2021. Get your tickets now at <https://www.skepticon.org.au>



## FSM Executives in the Media

Over the past 4 years FSM and its Executive have been published or interviewed nearly 200 articles, primarily on topics that challenged claims made for therapeutic goods and unproven/disproven interventions offered by registered practitioners.

Below are articles published since the last newsletter

- [Flaxseed oil medical institute faces scrutiny over 'Echinacea' traps](#)
- [Dietary supplements causing serious side effects in Australians who didn't require big antibiotic study shows](#)
- [Drug-related liver injury: call for better regulation of supplements](#)
- [Dietary supplements can cause severe liver injuries](#)
- [Not good enough, Premier Bertrando](#)
- [When do we vaccinate the kid?](#)
- [New insights into how the first brain works in the gut](#)
- [Avenar, a Food for Special Medical Purposes for Cancer Patients](#)
- [Not good enough, Premier Bertrando](#)
- [Premier Bertrando's place with the law is at risk as he faces legal action over his role in the KPMG Premier Waterford case](#)
- [KPMG Premier Waterford case: no one is to blame for the Premier's role in the KPMG Waterford case](#)
- [Catching the subject of the 'Echinacea' traps: the subject of the 'Echinacea' traps is a disgraced ex-MMR judge's anti-vax site](#)
- [Avenar: What Claims for Cancer](#)
- [A look for special medical purposes for cancer patients'](#)
- [A house's wind against itself cannot tame the pandemic](#)
- [When is food medicine?](#)
- [Penalty over anti-epidemic formula flagged on Ebay](#)
- [The Australian 'best' epidemic and its regulation: complementary medicine weight loss products](#)
- [Unhappy feet: Cleansing foot patch claims are worse than](#)
- [Collagen is the new needle-free beauty trend - but does it work?](#)
- [A course of TGA bureaucracy inflicts a 'weight loss'](#)
- [TGA fails to protect against shonky weight loss product](#)
- [TGA's 'weight loss' product is a 'weight loss' product: A burning question for the TGA's 'weight loss' product](#)
- [Using The apy for Vaginal Rejuvenation](#)
- [Echinacea: natural path to outrageous, dangerous Covid vaccines](#)

**Flaxseed Pharmaceuticals fined \$25,540 for alleged unlawful advertising of Anti-Epidemic Formula 1 in relation to COVID-19**





## Comments from our 'Friends'

Emeritus Professor, Edward Ernst MD PhD FMedSci FRSB FRCP FRCP(Edin), LOE (UK),

First occupant of the Living chair in Complementary Medicine

"Amongst all the various organisations of sceptics across the world, the FSM is easily my favourite. For 10 years they have shown us how to go about the task of informing consumers about all sorts of scams and potentially dangerous health trends. They pursue these often difficult tasks with energy, expertise, imagination and humour. I am proud to be affiliated with the FSM and hope the next 10 years will be as successful as the last."

Professor Ian Frazer, AO, FRSE, FRCR, FRACP, FRCP, FRCP(Edin), FRACP, FRCP(Edin), University of Queensland

Australian of the Year (2006), Prime Minister's Prize for Science (2008), Australian Living Treasure (2012), Companion of the Order of Australia (2012)

"I'm pleased to see that the Friends of Science in Medicine have been working successfully for 10 years promoting the ideal that only research based medical practice is likely to be optimal medical practice."

Professor Anna Finkel AO, FRCGS, FRCR

Australia's Chief Scientist (2014-2020), David Denchurst Medal for outstanding service to biomedical (2019), Chancellor, Monash University (2008-2015)

"It is perplexing that the same people who say 'listen to the science' of climate change ignore the science when it comes to treating diseases or deciding whether to be vaccinated. Thankfully, we have Friends of Science in Medicine to say true to the science rather than emotion or ideology. From a scientific point of view, homeopathy theories are as credible as the conspiracy theory that COVID-19 vaccines inject microchips to track your movements. FSM explains the truth. The TGA allows complementary medicines to make claims based on traditional evidence instead of science. FSM bravely calls it out. FSM does its work unemotionally and respectfully. The truth presented again and again, without being strident or rude, is the only way to cut through the drizzle. Congratulations, Friends of Science in Medicine, for ten years of sticking to the science and cutting through."

Dr Sumon Singh MSc, PhD, Science Writer (UK)

"There are lots of sceptics, scientists and medical experts who care deeply about evidence based medicine and ensuring patients are not misled by health misinformation, and for a decade now Friends of Science in Medicine have been a shining example of how to turn that interest and expertise into action. Their work with regulators to highlight and challenge misleading health claims has been immensely valuable, and the Australian public are better protected from quackery as a result of FSM's work. Long may they continue!"

Professor Henry Burger AO, MD, FRACP, FRCR, FAHA, FAHMS

Distinguished Scientist, Hudson Institute, Consultant Endocrinologist, Patron, Jean Haines for Women's Health Adjunct Professorial Fellow, Monash University

"My congratulations to FSM on its 10th anniversary. FSM fulfils an essential role in emphasising the importance of scientific evidence in the teaching and practice of medicine, especially with regard to therapeutics. It continues to do an excellent job."

Dr Mark Crisp, MD, Chief, Infectious Diseases, Legacy Health, Producer, Quackcast, USA

"Congratulations on reaching a decade in the Science Based Medicine world. Having totally failed with a similar organisation, I know how difficult it is to start, maintain, and grow an organisation. I'm consumed with envy and admiration. I wish you another decade of success."

Professor Shaun Holt, Founder and Medical Director of HinesLab, New Zealand

"I am delighted to have made a contribution to this important work. In these strange and unique times the work of FSM and the importance of science has perhaps never been more important."



Professor Martin Rothrow CRE FRS FMedSci FRCP, Emeritus Prof of Medical Genetics, University of Cambridge, Hon Faculty, Wellcome Trust Sanger Institute

*"HAPPY BIRTHDAY FSM: Modern medicine is a very ethical profession. It tries to apply evidence based diagnosis and care in the best interests of society, and works towards transparency. This ethos has led to doctors and other health professionals being amongst the most trusted groups in our societies. An important part of the maintenance of these high standards, and of public confidence in them, is the strong public regulatory system in which we function. I find it quite weird, that our society tolerates and even encourages parallel groups who claim to minister to our health, whose ethos is to not collect evidence of harm or efficacy, not to improve by sceptical analysis of their own practice, and who have somehow convinced policy makers that since they do not themselves seriously examine whether their methods work, no one else should regulate them any more stringently. What an example of modern democracy in action, protecting the perpetrators rather than the gullible, in the name of freedom and tolerance. Very few voices still speak out against this abuse of public trust, but FSM seeks out these iniquities, shining light in the dark corners, trying to shame public authorities by patiently drawing attention to the patent nonsense they sometimes endorse, and to their indefensible double standards. It's been doing that for 10 yrs now, and I for one feel better for knowing that I'm not alone in thinking the world has gone mad. Thank you, editors and contributors. Please keep it up."*

Professor Grant R Sutherland AC, DSc HonMD HonFRCPA FAA FRS

***Emeritus Geneticist, Women's and Children's Hospital, Adelaide, SA***

*"I would like to offer my congratulations to Friends of Science in Medicine on 10 years of actively asserting that scientific medicine is the only form of medicine, apart from placebo effects, that helps combat illness. Drawing attention to the many forms of quackery, inappropriate forms of practice and supplements that are not beneficial and may even be harmful, the organisation is doing a great service to the community. We have seen in the current pandemic that the promotion of false treatments, inappropriate medications and demonisation of vaccination will prolong the pandemic and cost many lives. I trust that FSM will continue to try and succeed, to ensure that non-scientific approaches to illness are not supported by any rational community and will become outlawed by informed politicians."*

Clinical Professor Graeme Stewart AM BSc(Med) MBBS PhD FRACP FRCPA

*"It is a great pleasure to congratulate the Friends of Science in Medicine at the milestone of 10 years of essential contribution to public discourse as a potent voice in the defence of evidence as the key driver of all health care decisions. With a decade of tireless effort, highly respected senior leadership and well targeted campaigns, FSM has become an integral part of safe and effective medicine in Australia and beyond. The need for such a well organised voice was very evident in 2011 ; sadly, that need is still present in 2021, as so well highlighted by the COVID-19 pandemic.*

*Good luck with maintaining the quiet, persistent voice of reason for another 10 years, confident in Sigmund Freud's wise words that 'The voice of the intellect is a soft one, but it does not rest until it has gained a hearing'.*

*FSM's voice of the intellect has gained a hearing on many occasions over its first decade. At this milestone, look back with pride in a job well done and forward with resolve to the task still ahead. So much depends on your ongoing success."*

Emeritus Professor Robert Goldner AO, MD FRANZCP FRCPsych

***Morrell Medal winner (2019), RANZCP Senior Research Award (1992)***

*"Ten years of fresh air from FSM. The founders deserve not only our congratulations, but also our sincere thanks for their achievements. With ever increasing costs of health care, the role of FSM will be ever more important in the future."*



**Emeritus Professor Jeffrey V Rosenfeld AC, OBE**

**MBBS MD MS FTSE FAHMS FRACS FRCS(Edin) FACS IFAANS FRCS(Glasg)(Hon) FRCST (Hon) FRCNST(Hon), Senior Neurosurgeon, The Alfred Hospital, Emeritus Professor of Surgery, Monash University**

*"In our society where social media reigns, general scientific literacy declines and fewer school students embrace STEM subjects, the scene is set for the rise of general medical and scientific ignorance. Never has there been a greater need for a counterbalance to the purveyors of non-evidence based health sophistry. The Friends of Science in Medicine (FSM) have provided a vigorous counterbalance by repeatedly skewering non-evidence based health education, practices and treatments. Congratulations FSM on your tenth anniversary! Long may you continue!"*

**Joseph Paul Forgas AM, DPhil DSc (Oxford), Scientia Professor, University of NSW**

**Distinguished Scientific Contribution Award, Australian Psychological Society, Alexander von Humboldt Research Prize (Germany), Rockefeller Foundation Fellowship**

*"The worst exploiters of human gullibility often prey on the most vulnerable among us, people who are desperately ill, in pain and face medical challenges. Unfortunately, we now know from psychological research that the fragile rational capabilities of humans are often swamped by the primeval desire to be safe and healthy, so purveyors of scam medicine, alternative therapies and rip-off cures have a relatively easy task. Friends of Science in Medicine is one of those essential organisations we desperately need to fight the purveyors of dishonest health products, defend consumers from being cheated, and to promote good scientific practices in medicine. Congratulations to Friends of Science in Medicine who have done a fantastic job to achieve these objectives for the past ten years, and they deserve our enthusiastic support to continue with their essential work into the future."*

**Simon Chapman AO, PhD FASSA HonFEPH (UK) Emeritus Professor of Public Health, UofSyd, Skeptic of the year (2013), WHO's World No Tobacco Day Medal (1997)**

*"With the inexorable domination of the internet and social media in how the vast majority of the world's population accesses information, there has never been a more important time for scientists in health and medicine to cull out fake news, charlatans and the weapons-grade, often dangerous nonsense that proliferates. Friends of Science in Medicine has provided an excellent and enduring bovine excrement detection service to the Australian public over 10 years."*

**Professor Chris French BA PhD CPsychol FBPdS FRSA**

**Distinguished Supporter of Humanists UK**

*"Congratulations to Friends of Science in Medicine on their 10th anniversary! Quackery has always been with us but the COVID pandemic has highlighted like never before the need for medicine to always be based upon solid evidence. Anything less costs lives. If there was a God, I would thank her loudly and clearly for the excellent job that FSM have done in the last ten years to fight pseudoscience in medicine in Australia and internationally. I hope the association goes from strength to strength in the coming decades as, sadly, there is no sign that quackery will be disappearing any time soon. Keep up the good work!"*

**Alain Brailion MD PhD John Maddox Prize for Standing up for Science, commendations (2017)**

*"Kudos for this 10th birthday. FSM is a beacon for its crusades against fake medicines based upon weird superstitions as well as against the hijacking of Evidence Based Medicine. The Covid-19 crisis highlights how much we need FSM more than ever before."*

**Dr Mark Crislip, MD, Chief, Infectious Diseases Legacy Health, Producer, Quackcast, USA**

*"Congratulations on reaching a decade in the Science-Based Medicine world. Having totally failed with a similar organization, I know how difficult it is to start, maintain, and grow an organization. I'm consumed with envy and admiration. I wish you another decade of success."*





Professor Carl Bartecchi, MD MACP, Founding Fellow, Institute for Science in Medicine, USA

*"Congratulation on your 10th anniversary."*

Jann Hellamy, JD, Attorney, co-founder and Board member Society for Science-Based Medicine

*"Friends of Science in Medicine and its small staff of volunteers, armed with an unyielding commitment to science as the only appropriate standard for medicine, has bested the alternative medicine industry again and again. Pseudoscience thrives when unchallenged but, fortunately for Australians and the rest of us, FSM has been there to confront unvalidated claims with the simple demand: Where's the evidence? Congratulations, FSM, on your successful first decade and here's to many more!"*

Professor Gary Witter, MBBCh MD FRCP FCP FAHMS

Professor of Medicine & Director FFCMH, Adelaide Medical School, University of Adelaide

*"It is all too easy to allow the magnified echoes of anecdote and vested commercial interests to influence the practice of medicine to the detriment of patient care. There is no better example than that of scurvy, where the information about experiments indicating both the likely cause and effective treatment was subjugated for over 40 years resulting in the needless deaths of a great many individuals. Advances in medicine are based on good science and the appropriate implementation of evidence into practice. For 10 years Friends of Science in Medicine have fearlessly called out the misleading and frankly fraudulent and promoted evidence-based practice. I am grateful for their endeavours - long may they continue"*

Professor John Guillebaud

Emeritus Professor of Family Planning and Reproductive Health, UCL

*Congratulations to Friends of Science in Medicine on 10 years of excellence in challenging claims in medicine that are not evidence-based.*

*There is still a long way to go. It is unacceptable that regulators continue to allow the promotion of such medical techniques or products, on such feeble grounds as "well, at least they are unlikely to do harm" or "if people feel better, no worries that claimed benefits are coincidental or placebo effects".*

*Only one kind of medicine should be recognised, the kind that is science-driven, with no data-free "alternative".*

*But the former must also adopt the best features of the latter: providing TIME and a listening ear to self-perceived concerns, and the questioning of perceived wisdom.*

*Otherwise however unjustified the popularity of alternative practitioners will continue, undented.*

## Comments from our organizational 'Friends'

HealthWatch UK



Registered Charity No. 1062382

*"HealthWatch UK congratulates Friends of Science in Medicine, our sister organization on the other side of the world, on the tenth anniversary of their relentless battle against pseudoscience in Australia. We applaud them for calling out health scams that put the vulnerable at risk; for encouraging students to respect scientific evidence; and for taking on the giants - be it universities or the WHO - when they lend credibility to unproven treatments. Our thanks to Loretta Maron and Ken Harvey for writing some great articles for our newsletter. May FSM flourish and continue the good work. We look forward to working with you in the future."*

*Our thanks to Loretta Maron and Ken Harvey for writing some great articles for our newsletter. May FSM flourish and continue the good work. We look forward to working with you in the future."*



### Australian Skeptics Inc



*"Congratulations to FSM for achieving its first decade of activism. Your work is much appreciated. In March and June 2011, we ran articles in our magazine, The Skeptic, investigating courses on pseudomedicine and pseudoscience being run at Australian universities. We were not concerned with academic study of such topics, which is a proper activity to pursue. But it turned out there was hardly a university in Australia that was not promoting some form of unsubstantiated 'woo', whether accepting as fact*

*modalities such as "energy medicine" or homeopathy, or actively training people to enter the market with techniques that had been soundly debunked. That this was common in medical and nursing schools was of particular concern.*

*FSM quickly took up the mantle of campaigner against such occurrences, and has continued to do so effectively and energetically ever since, though not, of course, without opposition from those apparently offended by rationality and fact. The Skeptics have been proud to support FSM, morally, financially, and with consultation on various areas, and we are happy to continue to do so in whatever capacity to help ensure FSM maintains the rage and holds purveyors of nonsense to account. More power to your arm!"*

### Good Thinking Society (UK)



*"The work of Friends of Science in Medicine is an absolute inspiration. At a time when misleading claims and dodgy health advice is rife, the FSM has been at the forefront of the fight back. They've shown that with passion, enthusiasm, determination - and generous helping of expertise - it's possible to push back the tide of*

*health misinformation and stand up for patients and the public in Australia. Well done to everyone involved!"*

**We would like to ask our supporters**

**to alert their friends to the important role being played by**

**Friends of Science in Medicine**

**and to encourage them to join as a Friend or add their support in other ways.**

**You can contact us and new supporters can join us at no cost at:**

**Email** [scienceinmedicine@bigpond.com](mailto:scienceinmedicine@bigpond.com)

**Web** <http://www.scienceinmedicine.org.au>

or follow us on Facebook or Twitter

**Facebook** <https://www.facebook.com/FriendsOfScienceInMedicine/>

**Twitter** <https://twitter.com/friendsofscimed>

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